

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE:

1. Stay-in-place formwork for casting vertical concrete structures comprising:
 - a plurality of elongate vertically-extending wall panels interconnected in edge-to-edge relationship *via* suitably configured elongate wall interconnection means along their longitudinal edges to define an outer perimeter wall of formwork assembly; and,
 - a plurality of inner support panels disposed within the wall and associated with the wall panels at selected suitable intervals *via* the co-operative interconnection of connector means provided along the edges of the support panels and complementary support panel connector means provided on the inward-facing surface of the wall panels.
2. The stay-in-place formwork of claim 1, wherein the selected interval between adjacent support interconnection means of the wall panels is a regular interval.
3. The stay-in-place formwork of claim 2, wherein the selected regular interval between adjacent support interconnection means of the wall panels is conserved as a unit measure of width, and wherein the wall panels and support panels are dimensioned such as to have an overall effective width that is a whole number multiple of the unit measure of width.
4. The stay-in-place formwork of claim 1, wherein the support panel is elongate in the vertical orientation, and wherein each elongate support panel further comprises at least one suitably dimensioned perforation to permit the cross-flow of concrete and the cross-placement of conventional steel reinforcing rods.

5. The stay-in-place formwork of claim 1, wherein the interconnection means between the wall panels and support panels are suitably configured for the releasable interconnection thereof.
6. The stay-in-place formwork of claim 1, further comprising at least one tensioning panel associated with at least one wall panel and at least one support panel.
7. A concrete structure comprising the formwork assembly of any one of the preceding claim and concrete poured into the assembly.
8. An elongate formwork wall panel for use with a formwork assembly for casting vertical concrete structures, the wall panel having inner and outer surfaces and wall interconnection means for engaging similar wall panels in edge-to-edge relationship disposed along its longitudinal edges, the wall interconnection means along the first longitudinal edge and the wall interconnection means along the second longitudinal edge being complementary, such that two adjacent wall panels presented with their inner surfaces in the same orientation may be interconnected, the wall panel further having support interconnection means disposed on its inside surface for interconnection with a formwork support panel having complementary interconnection means provided along its edges.
9. The elongate formwork wall panel of claim 7, wherein the support interconnection means extend along substantially the entire elongate length of the wall panel, and wherein each support interconnection means is spaced apart from adjacent support interconnection means across the width of the wall panel at a selected suitable regular interval.
10. A support panel for use with a formwork assembly for casting vertical concrete structures, the support panel having an overall effective width that is a whole number multiple of the unit measure of width.

11. A kit for a formwork assembly for casting vertical concrete structures comprising:

a plurality of elongate vertically-extending wall panels interconnected in edge-to-edge relationship *via* suitably configured elongate wall interconnection means along their longitudinal edges to define an outer perimeter wall of formwork assembly; and,

a plurality of inner support panels disposed within the wall and associated with the wall panels at selected suitable intervals *via* the co-operative interconnection of connector means provided along the edges of the support panels and complementary support panel connector means provided on the inward-facing surface of the wall panels.